The Kentucky Virtual Library presents:
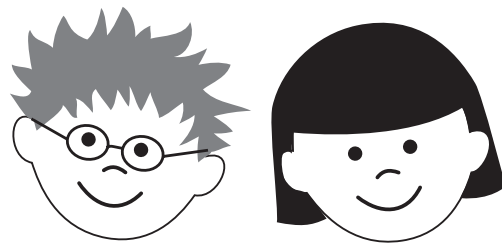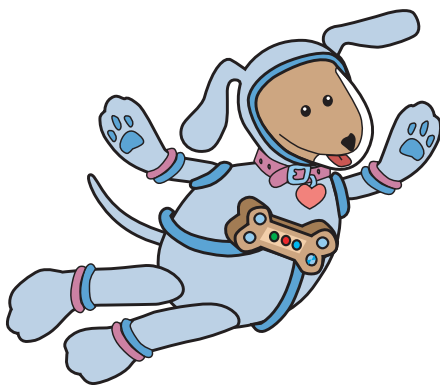# HOW TO DO RESEARCH
starring
ROVER & YOU!
the spacedog

IDEA: Points could be awarded for completing interactive exercises in tutorial. At the end of the sequence, the child could earn a number of stars on their "thinking cap", which looks like a wizard hat. Perhaps this could be a printable document that the child could color?

NOTE: Throughout Tutorial spacedog character pops in and out of frames making comments or asking questions (using spoken words or dialog bubble)

Step 1: DEFINE your subject
WHAT do you want to find out about?
Suppose you want to know: Who was the first dog to go into outer space?

NOTE: navigation elements shown here will be on every page. The appearance may be different (for instance, using rockets instead of arrows), but they will be in the same basic location.

IMAGE IDEAS:

closeup of child head/ or face (with starry backgound?)

symbols represent interesting topics revolve around child's head:

sports item (soccer ball), <u>telescope</u>, tornado, <u>dog</u>, US map, <u>rocket</u>, Egyptian symbol, dinosaur, volcano, <u>moon</u>,

a big red Question mark appears randomly below underlined symbols as they revolve

child's eyes follow the Question mark as it blinks on under topic symbols

One way to start is:
Make a list of things you already KNOW about the subject.

IMAGE IDEAS:

Child thinking of familiar images: dog in back yard sitting in front of dog house, wagging tail.

Children (and parent?) setting up small toy rocket as dog watches.

BRAINSTORMING

A neat way to get into the mood for research is by BRAINSTORMING.
Write down a list of ANYTHING that reminds you of your subject – even if it seems silly.
Don't try to judge whether it's a good idea yet. Just think of many, many ideas right away.
Later, you will decide which ones to look up.

IMAGE IDEAS:

Brains falling like rain on planet.

Lightning lights up the sky, child's head glows as ideas flash like interior lightning.

Pictures of sputnik, space shuttle, astronauts, dog biscuits, dog in car appear in brain as if within child's head.

GROUPING similar ideas
This means going through your list to look for ideas which are related.

(SpaceDog question:)   Which items go together because they're related?

snowboard	dog
spacecraft	milk
car	monkey
banana	rocket
cookies	garage
doghouse	skateboard

Then list any **synonyms** (words that are alike in meaning) that you can think of.

(SpaceDog:) Which of these words below are synonyms? Click on the words with similar meanings:

dog	canine
fish	eagle
pooch	hound
cat	monkey
mutt	bird
camel	snake

IMAGE IDEAS:

Show small images? next words: User clicks on items that go together.

For "dog, pooch, mutt, canine", the dogs can be different varieties or colors.

NARROWING your Search
This means deciding which ideas to keep and which to toss out.
Choose 3 to 5 ideas to find out more about.
(Here's where you get to make your first important decision about what to study.)

(SpaceDog comment:)
Choose the ideas below that would help you find out who was the first dog in space:

dogs who love to ride in cars
cats who love to ride on skateboards
countries that have launched rockets
dogs trained to smell for bombs and other unlawful items
astronaut training programs
history of space exploration
monkeys who like to ride on camels

IMAGE IDEAS:

User: clicks on certain items in a list of topics to indicate they are related to question. (Who was the first dog in space?)

The related items are then circled with an animated line, or perhaps they "glow" to show they're correct.

Sample ideas (these could have small humorous illustrations next to the text):

Yes   dogs who love to ride in cars

No   cats who love to ride on skateboards

Yes   countries that have launched rockets

Maybe?   dogs trained to smell for bombs and other unlawful items

Yes   astronaut training programs

Yes   history of space exploration

No   monkeys who like to ride on camels

(Incorrect ideas could be dragged to a trashcan icon on the page ?)

KEYWORDS

It's also very helpful to make a list of keywords.
These are words to search for in **Table of Contents, Indexes**
or the Library's **Computer Catalogs**.
Keywords are especially helpful when using **Search Engines** and the **Internet**.

(SpaceDog comment:) Which words below would you use as keywords?

dogs who go into outer space
canines in the astronaut field
animals who have traveled in outer space
rocket rides
space shuttle training and missions

IMAGE IDEAS:

show sample sentences and/or phrases

if user clicks on correct word, it glows or turns red to signal he/she has gotten the idea. (underlined words are "hot spots")

<u>dogs</u> who go into <u>outer space</u>

<u>canines</u> in the <u>astronaut</u> field

<u>animals</u> who have traveled in <u>outer space</u>

<u>rocket</u> rides

<u>space shuttle training</u> and <u>missions</u>

Make a QUEST STRATEGY:

Make a list of places where you might find answers.
These are your **Resources**. Here are a few resources you might use:
Decide which of these are your best place to find answers:

library (books, encyclopedias, dictionary, magazines, internet)

computer (information CDs, search engines, Kentucky database links, kids websites)

home (educational videos and TV programs, books, computer, people)

people (experts, parents, teachers, librarians)

(SpaceDog comment:)
Be sure to use more than just one!

IMAGE IDEAS:

sort of an interactive "shell game":

child's face eagerly peers under each "shell" as user clicks to lift it up or flip it over to uncover icon/symbols that suggest

each "Resource". (Library building, Computer, House, Grown-ups)

As resource is uncovered, the text "lights up" on the left.

(alternate idea: game asked you to pick the place where you will NOT find answers: under the bed)

under bed (dustbunnies, house slippers, leftover sandwich crust)

GATHER your supplies.

WHAT TOOLS do you need to search for answers?
• Something to write with
• Something to write on
• Thinking cap
• Time

(SpaceDog comment:)
Don't forget to check that the resource is available or open!

IMAGE IDEAS:

checklist of items or items dragged to backpack: (as user drags items into place, a noise plays to signal he/she has "scored")

pencil, pen, crayon, marker, ~~banana~~ / journal, notecards, ~~child's hand~~ / thinking cap / time (watch or clock?)

Items glow when user mouses over them, and/or secondary text appears with additional description of item. Correct items are

draggable. Crossed out items above get a negative noise or big X over them if chosen. Also they will not drag to the backpack.

When all items are packed, doggie voiceover says "You're all ready for the next step".

Here are some other special tools
created to help you do research:
The fabulous **KWL** strategy:
List what you **KNOW** about the subject
(You've probably finished this task already!)
List what you **WANT** to know
List what you have **LEARNED**

Other research methods are:
Clustering or **Mapping**
Fact Finder sheets
Data sheets
Venn Diagram

(SpaceDog comment:)
Research can actually be fun if you have the right tools!

IMAGE IDEAS:

[Items can either be printable documents or linked secondary pages]

When each tool name is clicked, an animated sequence shows how each one is utilized.

VISIT your Resources
and start by looking up your keywords

Table of Contents
(list of chapters in front of books or magazines, also shows page number)

Index
(list of topics in back of books, also shows page number)

Internet sites for kids:
Kentucky database links
KidsClick - http://sunsite.berkeley.edu/KidsClick!/
Yahooligans - http://www.yahooligans.com
BrainPop - http://www.brainpop.com

Search Engines
[subject of another tutorial?]

Dictionary (What if I can't spell it?)

(SpaceDog comment:)
The librarian will be happy to show you how to use the resources in the library. Don't be embarrassed to ask!

IMAGE IDEAS:

When user clicks on each items, show sample Table of Contents, Index, Computer or Card catalog, etc on related page

Search Engine listing may need to be a separate Tutorial section, accessible through several points.

for Dictionary listing, maybe we could have a page that shows up to expain options of looking things up.

 For instance: try different ways of spelling the word, ask the librarian, teacher for guidance?

[optional: Kids with backpacks walking into Library.

Child turning pages of big book, eyes delight in finding something he/she was looking for.

Kids searching on computer.

Faces talking to one another (one appears to be a grown-up, or expert of some kind: astronaut?)

Survey or Scan pages for information:

- Try to get a general idea of the page before you begin to read it.
- Look at the title and pictures. Read the captions under pictures.
- Read the first and last paragraphs.
- Look for main ideas in each paragraph or section.
- Sometimes these are written in bold type or italic type or underlined.
- If you find words you don't understand, write them on a piece of paper so you can look them up in a dictionary.

(SpaceDog comment:)
Writing is more than putting words on paper. It is THINKING.

IMAGE IDEAS: show typical book page, with title, subhead, paragraphs, etc. As user clicks on "important" items, they become red or have additional dialog boxes to give more information. If user gets main items correct, he/she earns a point.

Summarize each section as you read:

• Ask yourself the following questions:
   who, what, when, where, why and **how?**
• Review in your mind what you just read -- immediately.
• Can you put what you just read into a sentence or phrase?
• NOW you are ready to write your notes.

(SpaceDog comment:)
Asking questions as you read makes you an active reader!

IMAGE IDEAS:

child reading, then looking upwards, where "thought bubble" forms a summary of what he/she just read. Image within

thought bubble is foggy at first, then becomes gradually more clear. Child smiles.

WRITE DOWN the information as you find it

First: put today's date at the top of the page. Then write the topic or subject you are reading about. Use one of the METHODS of recording that we discussed earlier:

Notecards
     Use a separate card for each fact or topic. You don't have to use complete sentences.

Journal entries

KWL Chart
     List what I alreadyKNOW, what I WANT to know, and what I have LEARNED

Mapping (or Clustering) Chart
     Put the subject of your reading in the center circle
     Draw "spokes" coming out.
     Label spokes with subcategories.
     Write down details between spokes.

     (SpaceDog comment:)
   Be sure to put **" quotation marks "**   around anything you copy word-for-word.

IMAGE IDEAS: (user picks method, which animates to show development)

1. Show notecard/ journal-entry method.

2. Show Mapping method: Circle at center/ spokes radiate outward, text is entered in between.

3. Show KWL method: Topics at top of page. Data is listed on each column as written (problem making this interactive)

Bibliography & Footnotes:

Write down WHERE you found it! This is your **SOURCE**. Sources should be cited like this: (author's last name, author's first name, title of book, publisher, date and page numbers)

quiz: why is this important?
1. to prove I know what I'm talking about
2. so I can find it later
3. so other people can find out more too
4. all of the above

IMAGE IDEAS:

a foot with toes holding a pencil, writing clumsily   Voiceover: "NO, not THAT kind of footnote!

You don't even have to remove your space boots to write footnotes!"

New image appears:

A foot-shaped silhouette at the bottom of the page, toes wiggling as

a child's hand is writing on foot - (as if it is being tickled, giggling is heard in background)

HOW do you know the information is FOR REAL?

Here's some hints:

Look for **WHO** wrote the information.

Ask yourself, **WHY** did they write it? And **WHEN** was it written?

Is it **FACT** or **OPINION**?

Does it have footnotes? Have you checked them?

What are the **CREDENTIALS** of the author? How did the author become an expert?

(SpaceDog comment:)

Did you know there are websites that disprove myths?

IMAGE IDEAS:

Show books with awards, prizes; websites with certain logos or brands that identify content as being high-quality.

Ideas for awards: Blue ribbon, gold star, grade A+, stamp of approval ?

[idea: Mention warning, with image of "Planet Mudd" -- a place with gibbering monkey-like aliens who publish & broadcast wrong information]

ORGANIZE what you have found.
Here's some ways to organize your notes:
1. **Compare** and **contrast** items:
        Make a list of things that are similar. Put similar IDEAS TOGETHER.
        Then make a list of things that are different. Explain why they are different.
2. Look for **cause** and **effect**.
3. Try to **put items in order by date**. Look to see which thing happened first, then second, then third, and so on.
4. Look for problems, then look for solutions.

(SpaceDog comment:)
        Now is the time to **set aside items** that do not go with the question.
        But don't throw them away yet!

IMAGE IDEAS:

interactive game: which of the following items does not belong with others?

Similar ideas: moon, star, planet, comet, dinosaur, hockey player (user chooses items which go together)

Cause & effect: show sun coming up and alien flower opening up, sun going down and flower closes

Date order: show blueprint, building spacecraft, astronauts going aboard, liftoff, landing on planet (User must put elements in sequential order like a puzzle)

Your Opinion

Don't forget to include your own thoughts! Here's some questions to ask:

- What do you think about what you discovered?
- Do the answers make sense?
- Are they what you expected?
- How have you changed your opinions?

(SpaceDog comment:)

Can you think of **examples in your own life** that relate to what you have read?

IMAGE IDEAS:

Child visualizes images (family dog in rocket with child).

Then he "lassos" his own thought bubble.

Final paper (child's report) shows illustration of dog, child and rocket on page.

Now you can SHARE what you've learned.
Here are some METHODS of sharing. Choose your favorite way to share information:
Things you can WRITE: • Report • Story • Letter • Article for Magazine or Newspaper • Email • Poem
Things you can CREATE: • Play • Video • Drawing • Model • Game • Song • Website
Things you can DO: • Give A Speech, • Oral Report, • Talk to people, • Talk on Phone
Special method of sharing: • Put on Refrigerator

(SpaceDog comment:)
What can you do to have fun doing this?

IMAGE IDEAS: (interactive images bring up little movies)
giving speech (like political? with flags) [child says "We need to increase funding to put more dogs in space"]
filmmaking [one child in director chair as another puts dog into rocket, then dog jumps out and follows child away. Director yells "cut"]
report - title of report "Dogs in Space" with picture of pet on cover
letter being sent using postal service - letter addressed to Space Bureau
website - dog logging in to "www.spacedoggies.com"
painting - child in artist smock, doing Piscasso-esque rendering of dog in space
refrigerator - magnet shaped like a yellow star with report -- A+ and "job well done" on front page
phone - child calling NASA to request job application for dog

The final step in research is to EVALUATE.
Ask the following questions:
HOW did you do?
Did you follow the plan?
Did you answer the essential questions?
Did you record your information and sources accurately?
Did you present the information in the way it was assigned?
How did you score on the RUBRIC?
Did you learn something?

(SpaceDog comment:)
Now you're ready to become **a research wizard**!

IMAGE IDEAS:

rubric's cube: spacedog shows "rubric cube" rotating, rearranging in space. Categories (in color) shift as user clicks on it.

When all four items show up as BLUE, Best, a big A+ shows up across the page.

[optional: user can print out a "thinking cap" with stars to color. Cap could be personalized with name in Flash version of site.]

TITLE: GLOSSARY WORDS   GLOSSARY TERMS (separate file) user gets here by clicking on RED BOLD words in tutorial.

access	ability to get into a place (such as a website), to use something
bibliography	a listing of the places where you got your information there are very important rules about how to list things in the bibliography
card catalog	
computerized catalog	
chat room	
cite	to make a note about where your information comes from (as in "citing your source")
define (definition)	the meaning of a word
dictionary	a book full of words in alphabetical order; with the correct way to say them and their meanings
display	to show something to people (like putting it on the wall, or where people can see it)
email	electronic mail
encyclopedia	a book or set of books with lots and lots of information on many subjects
essential	the basic idea or nature of something, the most important property
evaluate	decide what you think of something, to determine what its value is
footnote	a note at the bottom of the page, explaining more detail or citing a reference (where you got the info)
index	a list of subjects at the back of a book usually it lists subjects in alphabetical order and shows page numbers where subjects can be found
internet	network of computers connected by ? phone wires
illustration	picture of something
journal	a book for recording events (can be like a magazine -- a book published several times a year containing articles about a subject)
keyword	an important word that conveys the main idea can be used to look up related topics; usually the SUBJECT word in a sentence
magazine	a book full of short articles and pictures (usually published several times a year)
network	a connection of some kind; wires, threads, strings which connect to each other resembling a net or web
newsgroups	
online	being on a computer that is connected to the internet
plagiarism	to take the ideas or writings of someone else and pass them off as your own copying information without giving credit to the author is STEALING the work of another person
priority	something that needs to be done first because it is very important
pursue	to search for something
quest	an adventurous journey in search of something
reference	an indication of a related subject; directing attention to a similar or related subject (something that points out or show)
resource	something you can use if you need to (can be a person or thing, such as a book, website or library)
rubric	a method of understanding what tasks need to be done to earn a certain grade
search engine	a way to find things on the internet
source	where something comes from
topic	your subject; what you're interested in

Children's faces: hair and skin color can be changed to indicate diverse characters. These indicate the basic simple way of handling children and illustrations in general.